

Title (en)  
Gas turbine engine.

Title (de)  
Gasturbine.

Title (fr)  
Turbine à gaz.

Publication  
**EP 0173774 A1 19860312 (EN)**

Application  
**EP 84305313 A 19840806**

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Abstract (en)  
A high efficiency, compact gas turbine engine of medium power output comprises at least two compressor stages including one front centrifugal compressor stage (34) all mounted on a common shaft (28) for compressing inlet air (24), a combustion chamber (64) for burning fuel in mixture with the compressed air to provide hot gases (56), output-power generating means (78) operated responsive to the hot gases, an axial compressor-turbine (44) driven by the hot gases exiting from the combustion chamber for driving the compressor stages including an axial compressor stage (42) integral with the axial compressor-turbine (44), and a heat exchanger (68) intercalated between this integral compressor/compressor turbine (42, 44) and the output-power generating means (78). Cool air in the compressor stage (42) serves to cool the integral compressor-turbine (44) blades, and subsequently reaches the combustion means (64). The position of the heat exchanger gives greater thermodynamic efficiency, and the whole configuration gives greater compactness, than hitherto.

IPC 1-7  
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IPC 8 full level  
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CPC (source: EP US)  
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Citation (search report)  
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